

Appl. No. 10/615,651

Amend dated JANUARY 23, 2006

Reply to Final Office Action of September 21, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented) A method of forming a catheter, comprising:
providing a braid layer having a distal end and a proximal end, an inner lubricious liner positioned within the braid layer;
securing a first polymer segment over the braid layer, the first polymer segment being positioned proximal of the distal end of the braid layer, the first polymer segment having a distal end and a proximal end;
cutting through the braid layer and the inner lubricious liner at a cutting position proximate the distal end of the first polymer segment and removing a portion of the braid layer that extends distally of the cutting position; and
securing a second polymer segment over the braid layer, the second polymer segment extending over the first polymer segment and extending distally of the cutting position.
2. (Original) The method of claim 1, wherein the first polymer segment has a melting point that is at least about 10° F above a melting point of the second polymer segment.
3. (Original) The method of claim 1, wherein securing the first polymer segment comprises positioning a heat shrink tube over the first polymer segment and applying sufficient heat and pressure to melt the first polymer segment.
4. (Original) The method of claim 1, wherein securing the second polymer segment comprises positioning a heat shrink tube over the second polymer segment and applying sufficient heat and pressure to melt the second polymer segment but not enough heat to melt the first polymer segment.

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5. (Original) The method of claim 4, wherein the first polymer segment has a melting point that is greater than about 400° F and the second polymer segment has a melting point that is less than about 400° F.

6. (Original) The method of claim 4, wherein the second polymer segment has a melting point that is about 350° F.

7. (Original) The method of claim 1, wherein the first polymer segment comprises a polyether-ester elastomer.

8. (Original) The method of claim 1, wherein the second polymer segment comprises a acetal resin/polyurethane blend.

9. (Original) The method of claim 3, wherein the heat shrink tube comprises a perfluoro (ethylene-propylene) copolymer.

10. (Original) The method of claim 4, wherein the heat shrink tube comprises a perfluoro (ethylene-propylene) copolymer.

11. (Original) The method of claim 1, wherein the second polymer segment comprises in combination a proximal segment configured to overlay the braid layer, an intermediate segment configured to overlay the first polymer segment, and a distal segment configured to form a distal tip.

12. (Cancelled)

13. (Original) The method of claim 1, wherein providing the braid layer comprises providing a braid layer that extends sufficiently distally of the cutting position to substantially prevent braid flaring at the cutting position.

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14. (Withdrawn) The method of claim 1, wherein providing the braid layer comprises providing a braid layer that extends distally of the cutting position and wherein providing the braid layer further comprises securing the distal end of the braid layer to substantially prevent braid flaring at the cutting position.

15-34. (Canceled)

35. (New) A method of forming a catheter, comprising:

cutting a catheter sub-assembly at a cutting location, the sub-assembly having proximal and distal ends, an inner layer, a reinforcement layer disposed on the inner layer, and a securement layer disposed over at least a portion of the reinforcement layer;

removing the inner layer, the reinforcement layer, and the securement layer distally of the cutting location; and

securing a polymeric outer segment over at least the securement layer such that a portion of the polymeric outer segment extends distally past the distal end of the cut sub-assembly.

36. (New) The method of claim 35, further comprising forming a portion of the polymeric outer segment into a distal tip for the catheter.

37. (New) The method of claim 35, further comprising assembling the catheter sub-assembly by:

providing an inner sub-assembly having the reinforcement layer disposed on the inner layer; and

disposing the securement layer on the inner sub-assembly by securing a securement segment thereon.

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38. (New) The method of claim 37, wherein
the reinforcement layer has a distal end;
the securement segment has a distal end; and
the step of disposing the securement layer on the inner sub-assembly is performed such
that the distal end of the reinforcement layer extends distally beyond the distal end of the
securement segment.

39. (New) The method of claim 35, wherein the reinforcement layer comprises a braided
member.